DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-016999
Date Inspected: 24-Sep-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 900
OSM Departure Time: 1730
Location: Job Site

CWI Name: William Sherwood and Jim Cunningham **CWI Present:** ☑ Yes ☐ No

Inspected CWI report:	☐ Yes	☑ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: Orthotropic Box Girder

Summary of Items Observed:

Caltrans Office of Structural Material (OSM) Quality Assurance Inspector (QAI) Joselito Lizardo was present at the Self Anchored Suspension (SAS) job site as requested to perform observations on the welding of components for the San Francisco Oakland Bay Bridge (SFOBB) Project.

At OBG 6W/7W top deck plate ‘A1 to A5’, QA randomly observed ABF certified welder James Zhen ID #6001 and Mike Maday ID #3391continuing to perform 1G (flat position) Submerged Arc Welding (SAW) on the splice butt joint. Welder Mike Maday was noted welding from A1 to A3 while welder James Zhen was welding on A3 to A5. The welders were utilizing F7A6-EM12K-H8, 3.2mm electrode with corresponding Esab OK Flux 10.62 flux and implementing Caltrans approved Welding Procedure Specification (WPS) ABF-WPS-D15-4042B-1. The joint being welded had a single V-groove butt joint with backing bar. The plates were preheated to more than 150 degree Fahrenheit using Miller Proheat 35 Induction Heating System located on top of the plate prior welding and moving it the side during welding. ABF/QC Jim Cunningham was noted monitoring the welding parameters of welder Mike Maday while QC William Sherwood was noted monitoring welder James Zhen. QA noted the welding parameters, the workmanship and appearance of the completed fill deemed satisfactory. At the end of the shift, SAW cover pass welding was still continuing and should remain tomorrow.

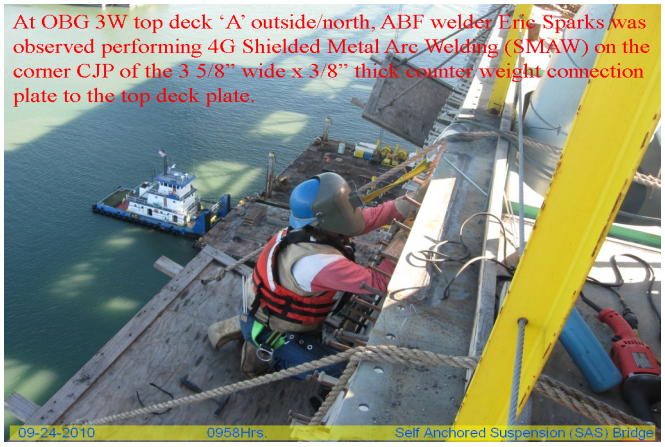
At OBG 3W top deck plate ‘A’ outside/north (panel point PP23), ABF welder Eric Sparks was observed perform 4G (overhead) position CJP welding 3/8” thick x 3 5/8” wide counter weight connection plate to the top deck plate. The welder was using SMAW with 1/8” diameter E7018H4R electrode implementing Caltrans approved welding procedure specification (WPS) ABF-WPS-D1.5-D1080. The connection plate has a 45 degree bevel that was welded from one side and then back gouge and back welded from the other side. ABF QC Mike Johnson was also

noted monitoring the welding and its parameters. During the shift, SMAW welding of the top counter weight connection plate was completed.

At OBG 1EPP9.5@E3#4 top deck access hole infill plates, QA randomly observed ABF/JV qualified welder Jin Pei Wang ID #7299 perform CJP groove welding repair. The welder was observed welding in the 1G (flat) position utilizing Shielded metal Arc Welding (SMAW) with 1/8" diameter E7018H4R electrode implementing welding procedure ABF-WPS-D15-1000-Repairs. The repair excavations were preheated to more than 140 degree Fahrenheit using propane gas torch prior welding. During the shift, Steven Mc Connell was noted monitoring the welder. Prior welding, ABF QC Steven Mc Connell was also observed performing Magnetic Particle Testing (MT) using Parker Contour Probe with red magnetic powder as detecting media on the boat shape repair excavations. During the shift, repair welding of the infill plates was still continuing and should remain tomorrow.

At OBG 5W/6W side plate 'E' outside, two ABF personnel were observed flush grinding the weld cover reinforcement of the splice butt joint as required. The personnel were using the 9"disc grinder and 4.5" flapper disc with the grinding cut of the disc to the plate parallel to the direction of the bridge complying with the contract requirements. At the end of the shift, flush grinding of the weld cover reinforcement was still continuing and should continue tomorrow.

At OBG 1EPP8.5@E4#4 and 1EPP8.5@E3#4 top deck plate infill plates, QA observed two ABF personnel excavating the repairs on the CJP welded infill plates to the deck. The personnel were using die grinder with barrel bit during grinding. At the end of the shift, excavation of the welding repairs was still continuing and should continue tomorrow.



WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Summary of Conversations:

No significant conversation ocurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact SMR Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo,Joselito	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer